



## Fake Styrene

### Preface

Styrene is often used in model making. There is a pretty good video of Adam Savage on the subject. Unfortunately Styrene is also quite expensive, so I've been thinking about creating my own fake Styrene for some months now. I can use this as a replacement when I [build fences](#) again. Since the beginning of the year I have been collecting PET (polyethylene terephthalate) caps from [plastic bottles](#). In Germany you can return them to the supermarket and get 0.25€ back. Since you also get the full price back if the lid is missing, I simply collected them to use as a [base for my fighter](#). Otherwise I had no real use. While shopping I had to buy baking paper (French fries :3). I got the idea if I could flatten the plastic lids with a hot iron. Maybe I can create a fake styrene, which is certainly not so good but can be used for emergencies.

### Materials



All tools and materials should be in the house and you do not have to buy anything.

- Old wooden Kitchen Board
- Baking Paper
- flat irons
- [Precision Knife](#)

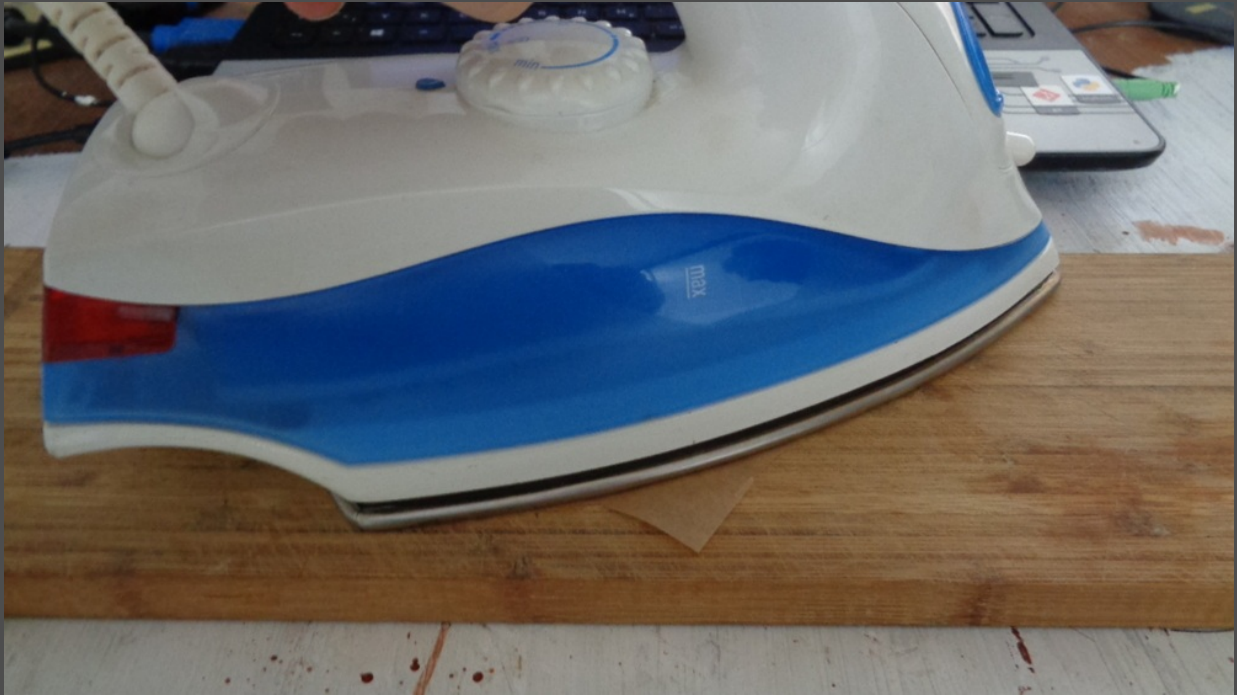
- Scissors
- PET caps from beverage Bottles

### Warnung

This is a tutorial for adults, because the technical process produces toxic fumes. Please inform yourself beforehand what fumes are produced. Air your study and wear a breathing mask against chemical fumes if possible.

### Realisation

First we cut off the edge of the lid with scissors, so that we do not have to work so long with the iron. Put the rest on the old wooden board and the baking paper over it. Optionally you can put the baking paper under the plastic. We heat the plastic until it has reached the desired thickness.



Then the plastic can cool down. At the first attempt the plastic rolled up, which I didn't want. At the second attempt I clamped the plastic between two wooden boards and tightened it with screw clamps. I waited ten minutes. The exact waiting time would have to be determined in several attempts.





After the plastic was cold I could see the result. Since I couldn't press so hard, the plastic was a little bent. But that didn't matter, because it was just a feasibility study.



Then I tried out if you can process the pressed plastic like Styrene. It was very easy to cut it with a model knife or scissors. To my own surprise you could scratch the fake styrene on one side and bend it afterwards. This is really handy if you want to use the material in model making.



## Conclusion

Overall, I am more than satisfied with the test result. You can *melt down* the lids and press them into a new shape. A disadvantage is that (presumably) poisonous fumes develop which one should not inhale better. I would have to plan as an exhaust air system. Advantages are that you save money and recycle old materials and thus protect the environment. All I have to do now is optimize the manufacturing process and then I can start pressing the PET plastic into a new mould. I can't say yet what I'm using it for, but there are certainly hundreds of possible applications.